

CLAIM SUMMARY DOCUMENT

WE CLAIMS:

1. (Currently Amended) ~~Rotary cutting disk (1) for a centrifuge, particularly for a separator, having~~

~~a) a disk-shaped base section (2) which is preferably adjoined by a tube-shaped section;~~

~~b) at least one draining duct (3) for a liquid phase being constructed in the base section (2), which draining duct (3) extends from the outer circumference of the base section at an acute angle to the flow direction starting in a curve toward the inside, which draining duct has an inlet (8) and an outlet (9),~~

~~characterized in that~~

~~e) at least one wall (4, 5) or the wall contour of the draining duct (3) is partially or in sections constructed in a wave shape.~~ A rotary-cutting disk for a centrifuge, comprising:

a disk-shaped base section adjoined by a tube-shaped section;

at least one draining duct for a liquid phase in the base section, the draining duct extending at an acute angle from an inlet at an outer circumference of the base section and in a flow direction of the liquid phase, the flow direction starting in a curved manner toward an inside of the disk;

the at least one draining duct having walls extending from the inlet to an outlet, and

at least one of the walls of the draining duct being at least partially or in sections contoured in a wave shape.

2. (Currently Amended) The Rotary-cutting disk according to Claim 1, ~~wherein characterized in that~~ the wave shape is formed by at least one wave contour (6a, 6b; 7a, 7b) which has ~~having~~ at least one reversing point (W).

3. (Currently Amended) The Rotary-cutting disk according to Claim 1-~~or 2~~, ~~characterized in that wherein a mathematical function describing the a contour of at least one of the wall(s) (4, 5) can be is differentiated at each point along that wall with the exception of~~

the inlet and the outlet (8, 9) from the draining duct and with the exception of ~~the an angular corner areas-area of an angular~~ the at least one draining duct.

4. (Currently Amended) The Rrotary-cutting disk according to Claim 1one of the preceding claims, characterized in that wherein at least one of the walls (4, 5) is provided at least in sections with ~~one of the a~~ wave contours (7a).

5. (Currently Amended) The Rrotary-cutting disk according to Claim 1one of the preceding claims, characterized in that wherein at least one of the walls is provided in sections with a one of the wave contours (7a) at least over ~~the a~~ first half of ~~the a~~ path of the at least one draining duct.

6. (Currently Amended) The Rrotary-cutting disk according to Claim 1one of the preceding claims, characterized in that the wherein wave contours (6a, 6b; 7a, 7b) are constructed on at least one of the walls according to a trigonometric formula.

7. (Currently Amended) The Rrotary-cutting disk according to Claim 1one of the preceding claims, characterized in that, with respect to their geometry, the wherein wave contours (6a, 6b; 7a, 7b) are constructed according to a sinusoidal curve.

8. (Currently Amended) The Rrotary-cutting disk according to Claim 1one of the preceding claims, characterized in that the wherein a wavelength $\lambda/2$ of the wave contours (6a, 6b; 7a, 7b) is greater, particularly at least two times greater, than their an amplitude A of the wave contours.

9. (Currently Amended) The Rrotary-cutting disk according to Claim 1one of the preceding claims, characterized in that wherein equiphase wave contours (6a, 6b; 7a, 7b) are constructed in different areas of at least one of the walls in different areas of the wall(s) of the draining duct (3).

10. (Currently Amended) The Rotary-cutting disk according to Claim 1 ~~one of the preceding claims, characterized in that wherein~~ non-equiphase wave contours (6a, 6b; 7a, 7b) are constructed in different areas of at least one of the walls ~~in various areas of the wall(s)~~ of the draining duct-(3).

11. (Currently Amended) The Rotary-cutting disk according to Claim 1 ~~one of the preceding claims, characterized in that the wherein a wavelength $\lambda/2(P)$ of the wave contours (6a, 6b; 7a, 7b) of at least one of the walls of the at least one draining duct changes from the inlet (10) to the outlet (11).~~

12. (Currently Amended) The Rotary-cutting disk according to Claim 1 ~~one of the preceding claims, characterized in that the wherein a wavelength $\lambda/2(P)$ of the wave contours (6a, 6b; 7a, 7b) of at least one of the walls of the at least one draining duct increases continuously from the inlet (10) to the outlet (11).~~

13. (Currently Amended) The Rotary-cutting disk according to Claim 1 ~~one of the preceding claims, characterized in that the wherein wave contours are mutually phase-shifted at the different walls (4, 5) of the at least one draining duct.~~

14. (Currently Amended) The Rotary-cutting disk according to Claim 1 ~~one of the preceding claims, characterized in that the wherein a slope (α) of the wave contours (6a, 6b; 7a, 7b) of at least one of the walls of the at least one draining duct is smaller than 20° relative to the a normal curve line (K) in their reversing points of the wave contours.~~

15. (New) The rotary-cutting disk of Claim 8, wherein the length $\lambda/2$ is at least two times greater than the amplitude A of the wave contours.

16. (New) The rotary-cutting disk according to Claim 7, wherein a length $\lambda/2$ of the wave contours is greater than an amplitude A of the wave contours.

17. (New) The rotary-cutting disk of Claim 16, wherein the length $\lambda/2$ is at least two times greater than the amplitude A of the wave contours.